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COMMITTEE FOR TRADE, INDUSTRY AND ENTERPRISE DEVELOPMENT
Centre for the Facilitation of Procedures and Practices
for Administration, Commerce and Transport (CEFACT)
Item 10 of the provisional agenda
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NEW MEMORANDUM OF UNDERSTANDING (MoU)

between

the United Nations Economic Commission for Europe (UN/ECE)
the International Organization for Standardization (ISO)
and
the International Electrotechnical Commission (IEC)

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Submitted by the CEFACT Steering Group*

After negotiations with the ISO and IEC, the new MoU has been approved by the CSG and has been forwarded for signature by the chief executives of the three organizations. The scope of the MoU has been expanded to cover electronic business and to include participation from user organizations with defined standardization requirements. The CSG is submitting this document to the Plenary for information and noting.

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MEMORANDUM OF UNDERSTANDING
BETWEEN
THE INTERNATIONAL ELECTROTECHNICAL COMMISSION,
THE INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
AND THE UNITED NATIONS ECONOMIC COMMISSION FOR
EUROPE
CONCERNING STANDARDIZATION IN THE FIELD OF ELECTRONIC
BUSINESS

WITH THE PARTICIPATION OF INTERNATIONAL USER GROUPS
AS IDENTIFIED IN THE ATTACHED REGISTER

This MoU consists of a general part, three annexes and a register of participating international user groups.

The scope of the initial Memorandum of Understanding was to specify a framework of cooperation between IEC, ISO and UN/ECE in the areas of EDI, open-edi and related trade document standards. This MoU extends this framework of cooperation to include other aspects of electronic business within and between enterprises, such as the requirements identified by the participating International User Groups.

In response to the ISO TMB resolution 94/1997 endorsing the report of the High-Level Steering Group on CALS (HLSGC), and the recommendation to extend the initial MoU, the three standardization organizations ISO, IEC and UN/ECE have agreed to invite participation of International User Groups to ensure that their standardization requirements are met. Participating International User Groups must satisfy the criteria defined below, and their participation be mutually agreed upon between the standardization organizations.

For the standardization organizations:

Mr Y. Berthelot
Executive Secretary
UN/ECE

Dr L. D. Eicher
Secretary General
ISO

Mr A. M. Raeburn
General Secretary
IEC

- 1.1 Whereas the International Electrotechnical Commission (hereinafter referred to as IEC), the International Organization for Standardization (hereinafter referred to as ISO) and the United Nations Economic Commission for Europe (hereinafter referred to as UN/ECE) recognize:
- the risk of divergent and competitive approaches to standardization;
 - the need to avoid duplication of efforts;
 - the need to avoid confusion amongst users, and
 - the need to ensure intersectoral coherence in the field of electronic business;
- 1.2 Whereas IEC, ISO and UN/ECE have collaborated with the International Telecommunication Union Telecommunication Standardization Bureau (ITU-T) through the Inter-Agency Working Group for Coordinated Open-edi Standards Development (hereinafter referred to as IAeG) for the purpose *inter alia* of
- reviewing current standards activities;
 - making a recommendation for a joint, coordinated programme for standards development and publication;
 - developing a strategy to carry out this programme, including provision for a continuous coordination group;
- 1.3 Whereas IAeG has developed a model cooperation agreement to govern collaboration between organizations working on standardization in the field of open edi,
- 1.4 Whereas IEC, ISO and UN/ECE have recognized the mutual benefit of collaborating with International User Groups which satisfy the following criteria:
- acceptance of the IAeG report;
 - agreed statement of standardization requirements;
 - standardization requirements related to the work programme of more than one standardization organization;
 - international membership; and
- have recognized the participating international user groups that are listed in the attached register. Additional International User Groups may be recognized from time to time and added to the register with the agreement of the Management Group. An amended copy of the register shall be published within one year of any change to the register.

- 2.1 Recognizing that **UN/ECE** is the worldwide focal point within the United Nations system for the development, maintenance and promotion of trade facilitation measures and standards; that international non-governmental and intergovernmental organizations actively participate and support these efforts; that trade facilitation reduces transaction costs in national and international economies and strengthens trade relations through the simplification, rationalization and whenever possible elimination of procedures, such procedures being the collection, presentation, communication and processing of data in paper or electronic format; that modern trade facilitation techniques such as EDI are prerequisites for the management and administration of efficient organizations; that the development and implementation of approved international standards are seen as fundamental to effective trade facilitation;
- 2.2 Recognizing that **ISO** is a worldwide federation of national standards bodies, at present comprising some 120 members (one per country); that the object of ISO is to promote the development of standardization and related activities in the world with a view to facilitating international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity; that the results of ISO work are published in the form of International Standards; that international organizations, governmental and non-governmental, participate in the development of ISO International Standards;
- 2.3 Recognizing that **IEC** is the worldwide authority for developing, publishing and promoting voluntary consensus International Standards in the field of electrotechnology; that this activity facilitates international exchange of goods and services, and develops cooperation in the spheres of intellectual, scientific, technological, and economic activity; and that the IEC currently comprises 58 participating countries representing the full spectrum of electrotechnical interests therein, including suppliers, users, governmental, professional and scientific bodies;
- 2.4 IEC, ISO and UN/ECE, as standardization bodies, and the participating International User Groups, as groups with standardization requirements, **agree to the following principles to govern their cooperation in the field of electronic business** (see annex C for the definition of electronic business):
 1. In the field of electronic business, this framework includes the areas of business scenarios, message and interoperability standards for business transactions, and product definition data standards for design, manufacturing and product support.
 2. At this time, no changes to the procedures of any of the standardization organizations result from this MoU and standards will continue to be developed and published according to the respective procedures of each organization whilst seeking ways and means to address the recommendations of the IAeG on this matter and taking into account the requirements expressed by the HLSCG report and the participating International User Groups.
 3. It is the policy of each standardization organization to encourage its own internal efforts to provide standards which meet the needs of its respective users in a multilingual environment. Each organization recognizes that coordinated standards are essential. Coordinated standards imply that the standards developed within the domain of the committees and working parties of the organizations will be interoperable and technically consistent.
 4. With a view to avoiding duplication of effort, it is agreed that the long-standing cooperation that has existed between IEC, ISO and UN/ECE shall be maintained. Thus, the standardization organizations will continue their technical cooperation to secure complementarity and a synergy of efforts within the framework provided by their respective areas of competence and mandates
 5. With a view to achieve the most efficient response to their standardization requirements and to avoid duplication, it is agreed that participating International User Groups will cooperate in providing their requirements and relevant existing documents to the standardization organizations, and participate in the coordination of the work programmes of those organizations.
 6. The standardization organizations will make available details of those aspects of their work programmes which will contribute to meeting the requirements of the International User Groups, and will encourage the participation of technical experts in their work.
- 2.5 In order to implement these principles IEC, ISO and UN/ECE agree that work programmes be coordinated at the highest level by a **Management Group** (see **Annex B** for the terms of reference and working procedures), with the participation of International User Groups to optimize the use of scarce resources and

provide a single entry point to users for standardization in electronic business. The Management Group, which will be established by the CEOs of the standardization organizations immediately following approval of this MoU by the three standardization organizations, should recommend the allocation of new work items to the appropriate bodies. Organizations are invited to bring forward to the Management Group information on new work items or other developments which may provide opportunities for exploiting new technologies. The Management Group will be responsible for making any necessary changes in its recommendations to the standardization organizations. In order to foster cooperation at the working level all expert groups of each organization shall allow authorized, competent experts of the other organizations to participate in their work.

- 2.6 The currently agreed division of responsibilities is shown in annex A, which may be revised from time to time by the Management Group.

ANNEX A DIVISION OF RESPONSIBILITIES

Recognizing that within electronic business, there is the potential for convergence for all types of data interchange, the work programme will be tailored to bring all types of information exchange development within a single framework.

Recognising the need for a single clear and unambiguous set of data definitions and relationships as the basis for defining sharable sets of data for the different processes in electronic business, in order to achieve modularity, consistency and interoperability between the various standards used, the MoU Management Group will be the coordination authority for developing an integrated, modular architecture of information for Electronic Business. The architecture shall include as a minimum:

- Clear, unambiguous definitions of the information, capable of interpretation into multiple languages
- Fixed relationships between elements of information
- Hierarchies of information elements
- Identification of information that should be maintained through registration authorities

Recognizing that the participating International User Groups are responsible for contributing to the specification of the requirements for standards for electronic business, although they do not have a unique responsibility. Within this context, the following current division of responsibilities is agreed.

A.1 In the case of UN/EDIFACT messages or other messages using its functionality, syntax and/or directories, UN/ECE-CEFACT is responsible for the development and maintenance of these **messages and the associated implementation guidelines**. ISO, IEC and the participating International User Groups are invited to contribute to such work by providing input through liaison and through direct participation of their experts in the message design groups.

In other application areas where UN/ECE is not capable of meeting the business requirements, such as specific functions in banking, documentation and industrial automation, ISO and IEC are responsible for the development and maintenance of the information exchange standards. Every effort will be made to avoid duplication of functionality provided by UN/EDIFACT and to establish links with UN/EDIFACT. UN/ECE is invited to contribute to such work by providing input through liaison and through direct participation of its experts in the application area groups.

A.2 Since the standardization of **syntaxes for electronic business** is broader than UN/EDIFACT, it is recognized that ISO and IEC are the more appropriate organizations for the development and maintenance of standardized syntaxes for electronic business. However, in the case of the EDIFACT application level syntax (ISO 9735), including its interactive version and associated security, it is understood that its development and maintenance is a collaborative ISO-UN/ECE activity, to be carried out in a joint group, the secretariat of which is to be provided by ISO and the chair to be provided by UN/ECE-CEFACT. The results of the work of the joint group will be submitted for parallel approval in both ISO and UN/ECE and will be published jointly by ISO and UN/ECE.

A.3 In accordance with the provisions for maintenance included in the United Nations Trade Data Element Directory (TDDED, published, in part, as **ISO 7372**), it is recognized that maintenance is a collaborative activity carried out by the Joint ISO-UN/ECE Maintenance Agency, the secretariat and chair to be provided by the UN/ECE, and that results will be published jointly by ISO and UN/ECE.

A.4 In accordance with previous agreements between the three standardization organizations, it is recognized that ISO/ TC 154 is responsible for the management of the **BSR project**. Other bodies interested in the development of the BSR are invited to contribute to such work by providing input through liaison and through direct participation of their experts.

A.5 It is understood that standards for **naming, defining and coding of data elements** are the responsibility of ISO and IEC (carried out in ISO/IEC JTC1 SC 32 - Data Management Services, ISO TC 184/SC 4 - Industrial Data - Parts Libraries and in IEC SC 3D - Data sets for libraries of electric component data). UN/ECE and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts. It is understood that UN/ECE is responsible for the development of Guidelines for the use of SC 32 standards as the basis for the development of UN/EDIFACT directories. Other application areas within ISO and IEC will be responsible for the development of their own guidelines.

A.6 In the context of open-edl, it is understood that ISO and IEC are responsible for the development of standards concerning **security in edi transmission** (e.g. ISO TC 68 is responsible for security in Bank to Bank messages). UN/ECE and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts. It is understood that UN/ECE is responsible for the development of Guidelines and for the implementation of security standards in UN/EDIFACT Messages and in the EDIFACT application level syntax (ISO 9735), which should be consistent with other security standards. Responsibility for the coordination of the security aspects will lie with the MoU Management Group

A.7 In the context of open-edl, it is understood that ISO and IEC are responsible for the **development of methodologies and formalisms for creating and specifying Business Information Models (BIMs)**, for example the Semantic Descriptive Techniques being developed/chosen by ISO and IEC for modelling of Information Bundles in the BOV related standards for Open-edl. UN/ECE and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts. It is understood that UN/ECE is responsible for the development of Guidelines for the use of BIMs as the basis for the development of UN/EDIFACT Messages. Other application areas within ISO and IEC will be responsible for the development of their own guidelines. It is understood that participating International user groups are responsible for business process modelling for their environments. Responsibility for the coordination of modelling activities will lie with the MoU Management Group

A.8 It is understood that the maintenance of the **Open-edl reference model (ISO/IEC 14662)** is the responsibility of ISO and IEC. UN/ECE and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts. It is understood that ISO and IEC are responsible for the choice of existing formalisms and/or development of formalisms, for the specification of **scenarios** (including information bundles), and their registration in repositories (BOV related standards for Open-edl). It is understood that UN/ECE is responsible for the use of these formalisms for the development of scenarios within UN/EDIFACT. Other application areas within ISO, IEC and the participating International User Groups are responsible for the development of their own scenarios. Responsibility for the coordination of the scenarios will lie with the MoU Management Group.

A.9 It is understood that UN/ECE is responsible for the development of recommendations on **simplification of trade processes , trade procedures and business practices, and aligned paper formats**. ISO and IEC and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts.

A.10 It is understood that ISO and IEC are responsible for the development of standards on **industrial engineering practices, information and procedures**, throughout the product lifecycle. ISO TC184 SC4 is responsible for industrial and manufacturing data, and part libraries. IEC TC 93 - Design Automation is responsible for standardization to enable the integration and automation of electrotechnical product design, manufacturing and logistics support processes, and to facilitate procedures for product operation and maintenance. UN/ECE and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts.

A.11 It is understood that the standards for **technical documentation** are the responsibility of ISO and IEC (carried out in ISO/IEC JTC1 SC 24 and SC 33, and in IEC SC 3B). UN/ECE and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts.

A.12 It is understood that the standards for **processing multiple languages, character sets and encoding** are the responsibility of ISO and IEC (carried out in ISO/IEC JTC1 SC 2). UN/ECE and the participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts.

A.13 It is understood that CALS International is responsible for the preparation of a **generic electronic business reference model in a virtual enterprise** to support the CALS business scenarios, covering the different lifecycle phases of a product and a project, and the associated information requirements. This must recognize existing ISO, IEC and UN/ECE work on the value chain and business transactions. The generic model may be specialized to include sector-specific requirements. The reference model can be used to identify ongoing requirements for standardization, and to assist industry sectors and individual enterprises in identifying how to exploit both de jure and de facto standards to support electronic business. CALS International will also prepare a complementary Handbook for Electronic Business to provide information to industry on how to implement the standards in a consistent manner. The standardization organizations and the other participating International User Groups are invited to contribute to this work by providing input through liaison and through direct participation of their experts, and the standardization organizations shall provide the mechanism for processing any resulting documents as standards.

A.14 It is understood that the development of **Electronic Design Automation** standards is undertaken by a number of ISO and IEC technical committees and that the Electronic Design Automation Harmonization Group (EDAHG) is responsible for the harmonization of the standardization activities, under the ACET group.

Annex B: MoU Management Group -Working Procedures and Terms of Reference

In each standardization organization there is a decision making process. The work of the MoU Management Group will be to review and prepare recommendations for these organizations.

This group replaces the annual meeting of the three CEOs of the standardization organizations by delegating their authority to this group, in the context of IAeG report resolution b) page 18,.

Representatives of the CEOs of the standardization organizations, representatives of the participating International User Groups and key advisors shall be invited at the discretion of each individual body, with notice to the other bodies.

The MoU Management Group with the help of an ad hoc group for all procedural matters will constitute the management of the MoU as follows:

MoU Management Group:

Meeting frequency:

At least twice a year, taking account of meeting dates for the individual organizations and the business to be transacted.

Goal:

Management and coordination of the standardization work programme within the scope of the MoU,
Monitoring the implementation of recommendations of the IAeG and HLSCG reports
Monitoring the results of harmonization efforts undertaken by other groups within the scope of the MoU
Approving the procedures for joint groups established under the MoU, such as the Joint Syntax Working Group, and the ISO 7372 Maintenance Agency
Proposing changes as necessary to the MoU to reflect emerging requirements
Resolution of outstanding issues.

Attendees:

- a) Representative of the secretariats of the standardization organizations
- b) Chairs of the following ISO and IEC committees or their representatives
 - ISO/TC 46
 - ISO/TC 68
 - ISO/TC 154
 - ISO/TC 184 ; ISO TC 184/SC4
 - IEC/TC 3
 - IEC/SC 3B; SC 3D
 - IEC/TC 52
 - IEC/TC 56
 - IEC/TC 93
 - ISO/IEC JTC 1/SC 31
 - ISO/IEC JTC 1/SC 32

The secretaries may attend as observers but may not represent the TC unless they have been so nominated).

- c) Chairs of the following UN/ECE - CEFACT committees or their representatives
 - UN/EDIFACT Working Group (EWG)
 - Techniques and Methodology Working Group (TMWG)
 - Business Process Analysis Working Group (BPAWG)
 - Codes Working Group (CWG)f
 - International Trade Procedures Working Group (ITPWG)
 - Legal Working Group (LWG)
- d) Chairs of other ISO, IEC and UN/ECE committees when relevant.
- e) Representatives of the participating International User Groups

Operating procedures

Decisions should be taken by consensus among the affected parties. Where consensus cannot be achieved, then issues will be referred to the normal procedures of the standardization organizations for resolution.

Short written reports should be submitted for each agenda item.

The MoU Management Group should endeavour to use electronic communications to minimize the need for physical meetings.

The Chairman for each meeting will be provided by the standardization organizations in rotation.

The secretariat will be provided jointly by ISO, IEC and UN/ECE.

International User Groups seeking to participate in the Management Group should make their request to the Management Group Secretariat, with a statement of their standardization requirements, and their existing work programme.

Decisions relating to participation of International User Groups and the administration of the MoU should be taken by consensus among the standardization organizations.

Annex C: DEFINITIONS

Business: A series of processes, each having a clearly understood purpose, involving more than one organization, realized through the exchange of information and directed towards some mutually agreed upon goal, extending over a period of time. (Open-edi Reference Model Standard - ISO/IEC 14662).

Basic Semantics Register (BSR): The BSR is envisioned to be the official ISO register of data for use by designers and implementers of information systems in a manner which will allow systems development to move from a closed to an open multilingual environment, especially for use in domestic and international electronic communication including electronic commerce and EDI.

Business Operational View (BOV): a perspective of business transactions limited to those aspects regarding the making of business decisions and commitments among organizations, which are needed for the description of a business transaction. (Open-edi Reference Model Standard - ISO/IEC 14662).

Collaborative activity: In a collaborative activity joint meetings are held at working group level to develop a common standard, which then is approved using the appropriate approval process of each organization.

Electronic Business: A generic term covering information definition and exchange requirements within and between enterprises, including customers.

Electronic Data Interchange (EDI): The automated exchange of any predefined and structured data for business among information systems of two or more organizations. (Open-edi Reference Model Standard - ISO/IEC 14662).

EDI message: an approved, published, and maintained formal description of how to structure the data required to perform a specific business function, in such a way as to allow for the transfer and handling of this data by electronic means.

Open-edi: Electronic data interchange among multiple autonomous organizations to accomplish an explicit shared business goal according to Open-edi standards (i.e. that comply with the Open-edi Reference Model Standard - ISO/IEC 14662).

STEP: The Standard for the Exchange of Product Model Data (ISO 10303)

Syntax rules: Rules governing the structure of an interchange and its functional groups, messages, segments and data elements. (ISO 9735)

UN/EDIFACT (United Nations Electronic Data Interchange for Administration Commerce and Transport):

"User application protocol for use within user application systems for data to be interchanged compatible with the OSI model." (UN/EDIFACT syntax implementation guidelines, UNTDID 1990)

REGISTER OF PARTICIPATING INTERNATIONAL USER GROUPS

- 1. CALS INTERNATIONAL**
- 2. NATO CALS ORGANISATION**

1. CALS INTERNATIONAL

Continuous Acquisition and Lifecycle Support (CALS): CALS is defined as a strategic management concept that uses the best available information technology, management methods and international standards to :

- increase the effectiveness of organizations by improving sharing and reuse, and by re-engineering business processes, in order to attain faster, more accurate, lower cost operation, through the use in real time of a common distributed digital data base, taking into account the full life cycle of a product from development to disposal;
- allow integration of enterprises on a worldwide basis facilitating electronic commerce by the exchange of technical and business information within and between organizations.

CALS International is a worldwide non-governmental organization which acts as a focus for developing and agreeing standards requirements for electronic business among international industrial organizations, among its other tasks; that the standards are intended to facilitate the use of electronic information exchange within and between enterprises throughout the supply chain and the complete lifecycle of a product; that the best interests of industry are served by the use of international standards to support Electronic Business for all customers whether civil or military;

- IEC, ISO and UN/ECE have collaborated with CALS International and the NATO CALS Organisation through the High-Level Steering Group on CALS (hereinafter referred to as HLSGC) for the purpose of meeting the emerging global requirement from industry for a set of standards which will support electronic business including CALS, within an enterprise, and interoperability across a wide range of business associates.
- HLSGC has developed a set of recommendations for the selection, and, where necessary, development of a set of standards to support Electronic Business in a global environment,

For CALS International:

Mr D. Westerheide
Chairman
CALS International

For the standardization organizations:

Mr Y. Berthelot
Executive Secretary
UN/ECE

Dr L. D. Eicher
Secretary General
ISO

Mr A. M. Raeburn
General Secretary
IEC

2. NATO CALS ORGANISATION

Continuous Acquisition and Lifecycle Support (CALS) is defined as a strategic management concept that uses the best available information technology, management methods and international standards to :

- increase the effectiveness of organizations by improving sharing and reuse, and by re-engineering business processes, in order to attain faster, more accurate, lower cost operation, through the use in real time of a common distributed digital data base, taking into account the full life cycle of a product from development to disposal;
- allow integration of enterprises on a worldwide basis facilitating electronic commerce by the exchange of technical and business information within and between organizations.

The NATO CALS Organisation is the inter-governmental focus for international military co-operation on standards for electronic business for the support of weapons systems throughout their lifecycle; that current military user strategy is to supersede military-specific standards with their commercial counterparts wherever possible; and that international standards are preferred in order to reduce costs;

- IEC, ISO and UN/ECE have collaborated with CALS International and the NATO CALS Organisation through the High-Level Steering Group on CALS (hereinafter referred to as HLSGC) for the purpose of meeting the emerging global requirement from industry for a set of standards which will support electronic business including CALS, within an enterprise, and interoperability across a wide range of business associates.
- HLSGC has developed a set of recommendations for the selection, and, where necessary, development of a set of standards to support Electronic Business in a global environment,

For the NATO CALS Organisation:

Mr J. Emahiser
Chair
NATO CALS Management Board

For the standardization organizations:

Mr Y. Berthelot
Executive Secretary
UN/ECE

Dr L. D. Eicher
Secretary General
ISO

Mr A. M. Raeburn
General Secretary
IEC